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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,571	03/11/2004	Peng Lee	026018.50271	2570

28172 7590 09/27/2005

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EXAMINER

JAGAN, MIRELLYS

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/708,571		LEE ET AL.	
	Examiner		Art Unit	
	Mirellys Jagan		2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 42-59 is/are pending in the application.
- 4a) Of the above claim(s) 1-9, 11-25 and 42-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10 and 26-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/19/04 & 9/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group 1, Species 3, in the reply filed on 7/18/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

2. The information disclosure statement filed 9/20/04 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. Therefore, the information referred to in the cited non-patent literature (citations SS, TT, UU, VV, and WW) has not been considered because a copy of these references has not been provided.

Drawings

3. The Replacement drawings were received on 7/18/05. These drawings are not accepted because the photographs in pages 4-12 and 14-24 are not clearly shown.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claims 10 and 26-30 are objected to because of the following informalities:

In claim 10, the last two lines are incomplete. For purposes of examination, the limitation claimed in the last two lines has been interpreted to state that the temperature difference is maintained for a period of time.

In claim 26, it is not clear how the activation of the light switches and blowers are related to the electrical outlets being measured since they are all separate elements not related to each other. Furthermore, it is not clear if the electrical outlets being measured are referring to the electrical circuit of the preamble.

Claims 27-30 are objected to for being dependent on an objected base claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

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the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the ASTM-C1060-90 standard titled "Standard Practice for Thermographic Inspection of Insulation Installations in Envelope Cavities of Frame Buildings" in view of the publication titled "100's of Tips on Saving Energy and Money at Home" (www.mississauga4sale.com/newsletter/energy_saving_tips.htm) by Argentino.

Referring to claim 10, ASTM-C1060-90 discloses a method of inspecting building components, the method comprising:

creating a temperature differential of greater than 10°F between the inside and the outside of the building and maintaining it for a period of time (at least 4 hrs);

obtaining temperature profiles of an exterior building wall;

obtaining temperature profiles of the interior of a pitched roof (attic);

obtaining temperature profiles of interior building components;

assessing each profile to detect a thermal anomaly (air leakage/poor insulation) indicative of a problem with the building components; and

reporting the thermal anomaly indicative of a problem to a designated entity (see sections 1.4; 4.1; 5.1; 9.23; 9.41; 10.24; 10.241; 10.2.4.4; X2.2; and X2.4).

ASTM-C1060-90 does not disclose the particular interior building components, obtaining temperature profiles of each electrical circuit in the building, and turning on substantially all light switches and exhaust blowers in the building.

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Argentino discloses that energy audits are conducted in a residential building by using an infrared camera to inspect the interior building components for poor energy efficiency. An infrared camera obtains thermal images (temperature profiles) of the detected building components, and will show the presence of air infiltration or poor thermal insulation of the building. The interior building components that should be inspected include the building's electric wires and box, all ducts, and electrical outlets and switches because these are all sources of air infiltration or poor thermal insulation of the building that will affect the energy efficiency of the building (see "Insulation" on pages 2-3; "sources of Air Leaks in Your Home" on pages 3-4; and Ducts" on pages 7-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of ASTM-C1060-90 by obtaining temperature profiles of all of the electrical circuits and ducts when inspecting the interior components of the building, since Argentino teaches that these are sources of air infiltration that will affect the energy efficiency of the building

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of ASTM-C1060-90 and Argentino by turning on substantially all light switches when testing the electric circuits and turning on substantially all exhaust blowers when testing the ducts in order to determine the location of any thermal anomaly, i.e. the current in the electrical circuits must be active and air must be flowing through the ducts in order to determine if there is a thermal anomaly.

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9. Claims 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over ASTM-C1060-90 in view of Argentino and the publication titled "Infrared Inspection: Sample Home Inspection" by Boldstar.

ASTM-C1060-90 discloses a method of inspecting interior building components, the method comprising:

obtaining temperature profiles of interior building components;

assessing each profile to detect an anomaly (air leakage/poor insulation) indicative of a problem.

ASTM-C1060-90 does not disclose the interior building components including all of the electrical outlets, and assessing their profiles for an anomaly indicating an electrical problem, and turning on substantially all light switches and exhaust blowers in the building.

Argentino discloses that energy audits are conducted in a residential building by using an infrared camera to inspect the interior building components for poor energy efficiency. An infrared camera obtains thermal images (temperature profiles) of the detected building components, and will show the presence of air infiltration or poor thermal insulation of the building. The interior building components that should be inspected include the building's electric wires and box, all ducts, and electrical outlets and switches because these are all sources of air infiltration or poor thermal insulation of the building that will affect the energy efficiency of the building (see "Insulation" on pages 2-3; "sources of Air Leaks in Your Home" on pages 3-4; and Ducts" on pages 7-8).

Boldstar discloses a method of inspecting interior building components that includes obtaining temperature profiles of electrical circuits in the building (electrical panel), and

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assessing the thermal profiles for an anomaly indicative of an electrical problem such as overheating, circuit overload, or connection overheating (i.e., hot wire), wherein the profiles are recorded on a digital recording device (see images).

Referring to claim 26, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of ASTM-C1060-90 by obtaining temperature profiles of all of the electrical outlets and ducts when inspecting the interior components of the building, since Argentino teaches that these are sources of air infiltration that will affect the energy efficiency of the building.

Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of ASTM-C1060-90 and Argentino by further assessing the profiles of the electrical outlets for an anomaly indicating an electrical problem, as taught by Boldstar, in order to determine if the circuits are overheating.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of ASTM-C1060-90, Argentino, and Boldstar above by turning on substantially all light switches when testing the electric circuits and turning on substantially all exhaust blowers when testing the ducts in order to determine the location of any thermal anomaly, i.e. the current in the electrical circuits must be active and air must be flowing through the ducts in order to determine if there is a thermal anomaly.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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The following publications disclose building inspection:

“ASHI Standards of Practice”, American Society of Home Inspectors, 07/08/99,

<http://www.inspect-ny.com/ashi/standards00.htm>

“Checklist for Energy Efficiency in Buildings”, updated 10-9-99,

www.arch.hku.hk/~cmhui/teach/SBT/check.pdf

“Infrared Energy Audit”, Predictive Maintenance Co., updated 6/27/01, [www.predictive-](http://www.predictive-maintenance.com/energy.html)

[maintenance.com/energy.html](http://www.predictive-maintenance.com/energy.html)

“Home Energy Audit”, updated 1/12/99,

www.montgomerycountymd.gov/mc/services/dep/Energy/audit.htm

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 11AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MJ

September 22, 2005

A handwritten signature in black ink, appearing to read 'Mirellys Jagan', with a long horizontal flourish extending to the right.

Mirellys Jagan
Patent Examiner
Technology Center 2800